

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, ILLINOIS 60604

**SUBJECT:** CLEAN AIR ACT INSPECTION REPORT

Valtris Specialty Chemicals, Independence, Ohio

**FROM:** Brianna Fenzl, Environmental Engineer

AECAB (IL/IN)

**THRU:** Nathan Frank, Section Supervisor

AECAB (IL/IN)

**TO:** File

### **BASIC INFORMATION**

Facility Name: Valtris Specialty Chemicals

Facility Location: 7500 E Pleasant Valley Rd, Independence, Ohio 44131

**Date of Inspection:** November 22, 2022

#### **EPA Inspector(s):**

- 1. Brianna Fenzl, Environmental Engineer
- 2. Carlo Demma, Physical Scientist

#### **Other Attendees:**

- 1. Tim Marrow, Epoxy Department Manager
- 2. Susan Sobol, Environmental, Health, and Safety Manager
- 3. Bill Clements, L2 Department Manager
- 4. Dan Haines, Senior operations Execution Manager
- 5. George Polkabla, Maintenance

Contact Email Address: susan.sobol@valtris.com

Purpose of Inspection: Clean Air Act Compliance

Facility Type: Chemical Manufacturer

Regulations Central to Inspection: 40 CFR 63 Subpart VVVVVV

**Arrival Time:** 9:30 AM **Departure Time:** 11:53 AM

#### **Inspection Type:**

☑ Unannounced Inspection☐ Announced Inspection

#### **OPENING CONFERENCE**

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- Stated authority and purpose of inspection
- Provided Small Business Resource Information Sheet See attached to email.
- □ Provided CBI warning to facility

The following information was obtained verbally from Valtris Specialty Chemicals unless otherwise noted.

### **Process Description:**

The facility is broken down into three areas: L1, L2, and the epoxy area.

L2 is Valtris' tin and dryer business. There is a product line for each tins and dryers. For tins, the raw materials used are water, mercaptan, caustic, and hydrogen sulfide. The mixture of the raw materials can generate sodium sulfide. The organo-metallic tin that is created produces excess water and salt, which is transferred to the onsite wastewater treatment plant. There is a vacuum reactor to pull the excess water to the wastewater treatment plant. Emissions are routed to a condenser and then an outside scrubber. The outside scrubber uses caustic and bleach for neutralization. The pH and differential pressure are monitored and tracked daily. For dryers, there are three reactors, each with a condenser. Raw materials are metals, such as cobalt, manganese, potassium, calcium, etc., an acid, and a diluent. The raw materials are placed in the reactor. The liquid product from the reactors is then packaged in a drum or tote. Emissions are tracked and estimated based on the number of batches. There is a shared sly scrubber between the tin and dryer product lines for particulate matter.

L1 is where liquid stabilizers are made. Raw materials are mineral spirits, process oils, oleic acid, and several different phosphites. Raw materials are added to a blend tank then a reactor. Reactors can be heated up to 250°F but are typically heated to 150-180°F. The product is then packaged and sent out. There are a few that are solid and/or pelletized.

The epoxy area is where Valtris produces epoxidized soybean oil. The raw materials are added to the main reactor where an exothermic reaction takes place. The raw materials are in the reactor for approximately 5.5 hours. Then, the mixture is split out in a centrifuge process. There are two centrifuges on site. The first centrifuge does the splitting, and the second centrifuge is where process water is removed. From there, the Luwa unit removes the excess liquid. The Luwa unit operates at approximately 275°F. From there, the liquid goes to a condenser, then a scrubber.

Scrubber liquid is transferred to a hotwell. Water from the hotwell is then used for the vacuum pumps, then is sent to the wastewater treatment plant (Bio Plant). The product, a viscous liquid and/or oil, is put through a filter press and packaged to be sent out.

L1 and the dryer process line water is pretreated prior to being sent to the wastewater treatment plant. At pretreatment site (LWTP), all waste goes into tanks. It approximately accepts 3.5 gallons per minute. Sulfuric acid is used for pH adjustment. The LWTP removes heavy metals and oils. From there, the water is sent to the Bio Plant.

#### **Staff Interview:**

Valtris is a specialty chemicals manufacturer located in Ohio. They operate 24 hours, 5 days a week typically. There are approximately 50 to 55 employees at the site. Valtris uses a third-party consultant to calculate their emissions. Valtris has three air permits for each the dryer process, tin process, and thir whole facility.

Once every six months Valtris samples the discharge from the WTP to the sewer district.

### **TOUR INFORMATION**

**EPA Tour of the Facility:** Yes

#### **Data Collected and Observations:**

EPA observed L1 and L2 buildings, LWTP, WTP, associated WTP tanks, and epoxy area.

Photos and/or Videos: were taken during the inspection.

See Appendix A.

**Field Measurements:** were not taken during this inspection.

#### **CLOSING CONFERENCE**

Provided U.S. EPA point of contact to the facility

#### **Requested documents:**

- L1 & L2 monitoring / recordkeeping requirements October 2022
- L2 weekly inspection for fugitive emissions Q4 2022
- Drier HAP tracking data October 2022
- Bio Plant flow data 2022
- Chemical Manufacturing Area Source Inspection Checklist Q2 2022
- NEORSD discharge sampling requirements: methods and pollutant parameters
- AERs for 2018-2019, and 2020-2021
- Site stack testing records, if applicable

# **DIGITAL SIGNATURES**

Report Author:	 	 
Section Supervisor:		

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## APPENDICES AND ATTACHMENTS

1. Digital Media Log: Appendix A

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## **APPENDIX A: DIGITAL IMAGE LOG**

1. Inspector Name: Brianna Fenzl /	2. Archival Record Location: EPA Region 5
Carlo Demma	Electronic Records Center

Image Number	File Name	Date and Time (incl. Time zone and DST)	Description of Image
1	IMG_0303.JPG	11/22/22, 10:31:44 AM	Epoxy Building
2	IMG_0304.JPG	11/22/22, 10:31:44 AM	Epoxy Building (Duplicate)
3	IMG_0305.JPG	11/22/22, 10:36:18 AM	Luwa Unit
4	IMG_0306.JPG	11/22/22, 10:40:02 AM	Top of Luwa Unit
5	IMG_0307.JPG	11/22/22, 10:40:26 AM	Inside Scrubber, Epoxy area
6	MOV_0580.mp4	11/22/22, 10:56:40 AM	FLIR Video 1
7	MOV_0582.mp4	11/22/22, 11:14:58 AM	FLIR Video 2: Epoxy area
8	MOV_0583.mp4	11/22/22, 11:28:24 AM	FLIR Video 3: Epoxy area
9	MOV_0584.mp4	11/22/22, 11:36:50 AM	FLIR Video 4: Epoxy area
10	MOV_0585.mp4	11/22/22, 11:39:06 AM	FLIR Video 5: Epoxy area